REMARKS

Claims 1-13 are currently pending with the entry of this paper

The Office Action is incomplete.

While the Office examined and rejected Claims 1-10 over the prior art of record; the Office did not substantively address Claims 11-13 in the Action or in the cover sheet thereof. Claims 11-13 were previously examined and addressed in the Action of March 12, 2007 and the rejection thereof traversed by Applicant. Applicant respectfully requests that the Office address pending Claims 11-13.

Claims 1-10 stand rejected in the instant Action.

Drawings

Applicant acknowledges the acceptance of Applicant's amendment to the drawings submitted on July 11, 2007.

Rejection under 35 U.S.C. § 103(a)

While the Action is incomplete, Applicant will in good faith address the merits of the rejection as to Claims 1-10 to further prosecution thereof. On pages 2-4 the Office improperly rejected Claims 3-10 under 35 U.S.C. §103(a) as being allegedly unpatentable by Oelcer in view of Feng. It appears that the rejection is premised upon a misunderstanding and misapplication of the primary reference Oelcer. Applicant submits that the cited references do not disclose, teach or suggest the elements of Claims 3-10,

alone or combination, and Applicant requests that the rejections based thereupon be reconsidered and withdrawn.

In order for the Examiner to establish a *prima facie* case for obviousness, three (3) criteria must be met. First, there must be some suggestion or motivation, either in the cited prior art references or in the knowledge generally available to those of ordinary skill in the art, to modify the primary reference as the Office proposes. Second, there must be a reasonable expectation of success in connection with the Office's proposed combination of the references. Third, the prior art references must disclose or suggest all of the claimed elements. *See* MPEP § 2143. The Office has failed to establish a *prima facie* case for obviousness because the Office failed to satisfy his burden of showing that the prior art discloses or suggests all of the claimed elements of Claims 3-10, and, as such, failed to satisfy his burden of showing that there is a suggestion or motivation to one of ordinary skill in the art to modify the primary reference as the Office proposes.

Independent Claim 3, recites in part:

> ***(a) sequencing the data according to one or more unique sequences;***
> ***(b) modulating one or more of the unique sequences of data;***
> ***(c) selecting one of the modulated sequences of data based on the PAPR of that sequence;***
> (d) filtering said selected one to remove amplitude peaks outside a threshold band to thereby create a filtered signal; and,
> (e) transmitting the filtered signal over the multi carrier communication system. (emphasis supplied).

Oelcer, however, **does not sequence the data**. This is clearly discussed in both the background, summary and detailed description of Oelcer. For example, Oelcer discusses plural prior art schemes for providing peak to average power ratio (PAR or PAPR) control in digital multitone transmission (DMT) systems in the background. Oelcer specifically discusses a prior art system which avoids data rate loss through the use of expanded or redundant QAM constellations. In this system, the QAM constellations are expanded beyond the minimum size necessary to support the required data rate on each subchannel and a number of equivalent points are defined by a modulo operation. The input data is then mapped, and a PAR reduction algorithm selects a particular signal point which reduces the time domain peak amplitude. *See* Oelcer at 2:5-27. The peak value of the DMT symbol obtained using the minimum energy constellation points is thus first determined and an equivalent point selected according to certain criteria and the DMT symbol updated. This process is repeated until the desired PAR is achieved or a performance limit reached. *Id.* at 2:34-39. Oelcer, however, notes that such a system promotes an increase in the average transmit power and the added complexity by the modulo operations and PAR reduction algorithms. *Id.* at 2:40-45. Oelcer is directed to an improvement to this disclosed system in the background. *Id.* at 3:19-22.

For example, Oelcer discloses a system and method that, like the described prior art in the background thereof, expands a QAM constellation for a number N of

subchannels. *See Id.* at 6:22-7:3. Oelcer then generates a discrete multitone signal in a sample period by **selecting for each of the N subchannels,** the modulation symbol representing a basic constellation point or a corresponding equivalent point such that the peak value of the signal does not exceed a predetermined threshold. *Id.* at 3:4-8 and 6:22-7:3. Therefore, Oecler defines expanded constellation in which **a selected point** in the original basic constellation has a number (i.e., p-1) of equivalent points **where the p-1 equivalent points are selected** from redundant points in the opposite quadrant of the constellation to the corresponding basic constellation point. **A DMT signal is then generated by selecting modulation symbols representing the basic or equivalent signal points** such that the peak value of the DMT symbol in a given symbol period is less than a desired threshold. *Id.* at 3:9-19 and 6:22-7:3. This is not data sequencing, it is merely data recoding as the data sequence from symbol to symbol is not changed, only the symbols are changed. Therefore, it is clear that Oelcer does not teach sequencing the data as recited in Claim 3 and cannot be relied upon to provide *prima facie* support for the elements emphasized above. Feng, however, is equally unavailing and is merely directed to encoding side information by an error-correction code and transmitting this information through reserved subcarriers to reduce the peak-to-average power ratio. Thus, Feng fails to supplement the deficiencies of Oelcer and the Office has not asserted otherwise. Reconsideration and withdrawal of the rejection of Claim 3 are solicited.

Independent Claims 6 and 8 provide a similar element(s) to that described above in Claim 3. Incorporating the discussion above, it is clear that Oelcer does not disclose or teach data sequencing contrary to the assertions of the Office, but rather Oelcer merely selects a symbol and recodes the symbol. Feng, fails to supplement the deficiencies of Oelcer and the Office has not asserted otherwise. Reconsideration and withdrawal of the rejection of Claims 6 and 8 are solicited.

Claims 4-5, 7 and 9-10 are dependent upon independent Claims 3, 6 and 8 respectively. Claims 3, 6 and 8 are in condition for allowance. Thus, by virtue of dependency alone and without addressing the additional patentable elements thereof, Claims 4-5, 7 and 9-10 are also in condition for allowance. Reconsideration and withdrawal of the rejection of Claims 4-5, 7 and 9-10 are hereby solicited.

On pages 4-5 the Office improperly rejected Claims 1-2 under 35 U.S.C. §103(a) as being allegedly unpatentable by Oelcer in view of Corral. This rejection is also premised upon the misunderstanding and misapplication of the primary reference Oelcer discussed above. Incorporating the discussion above, Applicant submits that Oelcer does not teach sequencing the data as recited in Claim 1 and cannot be relied upon to provide *prima facie* support for these respective elements in Claim 1. Corral is equally unavailing and is merely directed to block encoding to reduce the peak-to-average power ratio. Thus, Corral fails to supplement the deficiencies of Oelcer and the Office has not asserted otherwise. Reconsideration and withdrawal of the rejection of Claim 1 are

solicited.

Claim 2 is dependent upon independent Claim 1. Claim 1 is in condition for allowance. Thus, by virtue of dependency alone and without addressing the additional patentable elements thereof, Claim 2 is also in condition for allowance. Reconsideration and withdrawal of the rejection of Claim 2 are hereby solicited.

Thus, the Office has not met his burden to provide a *prima facie* case of obviousness under 35 U.S.C. § 103(a). Reconsideration and withdrawal of the rejection of Claims 1-10 are hereby respectfully solicited.

For the same reasons discussed above, Claims 11-13 are also allowable over the art of record.

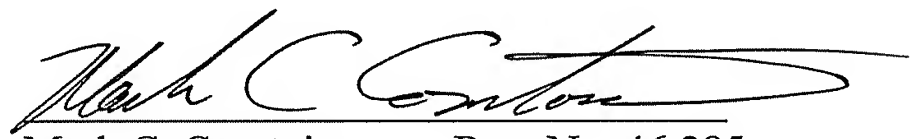
Conclusion

Applicant believes that the present application is in condition for allowance and, as such, it is earnestly requested that Claims 1-13 be allowed to issue in a U.S. Patent.

If the Office believes that an in-person or telephonic interview with the Applicant's representatives will expedite the prosecution of the subject patent application, the Office is invited to contact the undersigned agents of record.

While an extension of time is not deemed necessary, the Office is requested and hereby authorized to charge the appropriate extension-of-time fees against **Deposit Account No. 04-1679** to Duane Morris LLP.

Respectfully submitted,



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